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Observations of Comet b 1905 from Photographs taken with the 30-inch Reflector of the Thompson Equatorial at the Royal Observatory, Greenwich.

(*Communicated by the Astronomer Royal.*)

The following positions of Comet *b* 1905 were obtained from photographs taken with the 30-inch reflector. As a rule these were four images on each plate with exposures of from 1^{m} to 2^{m}. The plates were measured in the astrographic micrometer. Four reference stars were taken in each case, situated as symmetrically as possible about the comet. The positions of the reference stars were derived from the Catalogues of the Astronomische Gesellschaft.

Date and G.M.T. 1905				Apparent R.A.			Apparent Dec.			Log. Δ.	Corr. for R.A.	Parallax Dec.
d	h	m	s	h	m	s	°	′	″		s	″
Nov. 20	10	9	41	23	54	39·31	62	8	28·7	9·3825	+1·77	−3·6
21	8	13	25	23	47	2·78	54	1	25·5	9·3912	+·30	−1·6
23	9	55	53	23	38	18·44	37	31	24·9	9·4346	+1·01	+10·1
24	6	38	12	23	36	18·09	31	43	40·3	9·4649	−·29	+10·3
27	6	13	18	23	32	21·40	16	35	6·6	9·5657	−·25	+13·7
29	6	27	34	23	31	6·11	9	43	1·8	9·6312	−·12	+10·8

Further details of the observations will be given in the Greenwich volume.

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Observations of Mösting A made with the Altazimuth and Transit Circle at the Royal Observatory, Greenwich.

(*Communicated by the Astronomer Royal.*)

From the beginning of 1905, in concert with the Cape Observatory, observations of Mösting A have been made on the meridian when the Moon was in the second or third quarter. The primary object is a determination of the parallax of the Moon from the observations of N.P.D., the culminators being also observed at both observations for the elimination of the instrumental errors.

At Greenwich the limbs have as far as possible been observed as well as the crater, as in this way the observations of 1L are connected with those of 2L, and those of NL with SL.

The following table gives the tabular errors of the Moon's

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centre in right ascension from the Greenwich meridian observations with the altazimuth and transit circle. Those in N.P.D. cannot be given at present, as the corrections for R—D discordance for the two instruments have not yet been determined. The observations in N.P.D. of the limbs and crater with the same instrument can, however, be compared, as they are equally affected by the R—D corrections.

Apparent Error of the Tabular Right Ascensions of the Moon's Centre, from Observations of Mösting A and of the Moon's Limbs.

Date.	Mösting A		Limb.		Limb Obsd.
	Altaz.	T.C.	Altaz.	T.C.	
	s		s	s	
Jan. 14	−0·33	...	−0·37	−0·33	1
25	− ·09	...	− ·17	− ·08	2
27	− ·18	...	− ·25	− ·13	2
Feb. 17	− ·62	...	− ·60	− ·58	1
20	− ·32	...	...	− ·29	2
Mar. 14	− ·41	...	− ·52	− ·50	1
15	− ·66	...	− ·62	− ·67	1
17	− ·74	...	− ·74	− ·63	1
18	− ·70	− ·72	− ·67	− ·74	1
19	− ·62	− ·59	− ·52	− ·54	1
21	− ·56	− ·64	− ·40	− ·43	2
22	− ·36	...	− ·20	− ·27	2
25	− ·27	...	− ·20	+ ·02	2
Apr. 14	− ·73	...	− ·68	− ·75	1
18	− ·58	...	− ·54	− ·55	1
22	− ·37	− ·16	− ·34	− ·17	2
23	− ·26	...	− ·20	− ·23	2
May 15	− ·58	...	− ·57	− ·57	1
17	− ·51	− ·44	− ·47	− ·48	1
21	− ·18	...	− ·19	...	2
22	− ·14	...	− ·31	+ ·01	2
23	− ·16	...	− ·07	− ·11	2
June 14	− ·59	...	− ·40	− ·37	1
18	− ·35	...	− ·31	− ·22	2
June 19	−0·21	...	−0·29	−0·14	2
20	− ·22	...	− ·19	− ·20	2
22	− ·22	...	− ·05	− ·11	2
July 13	...	−0·59	...	− ·43	1
15	...	− ·44	...	− ·41	1
20	...	− ·15	...	− ·08	2
21	− ·31	...	− ·25	− ·04	2
Aug. 11	...	− ·40	...	− ·46	1
16	...	− ·22	...	− ·19	2
Sept. 7	− ·32	− ·16	− ·26	− ·20	1
8	− ·35	− ·22	− ·32	− ·45	1
12	− ·22	− ·07	− ·18	− ·19	1
18	− ·35	...	− ·23	− ·19	2
19	− ·33	− ·19	− ·33	− ·38	2
20	...	− ·39	− ·48	− ·55	2
Oct. 7	− ·32	...	− ·26	− ·28	1
10	− ·19	− ·25	− ·01	− ·23	1
13	...	...	− ·18	− ·21	2
16	− ·37	− ·44	− ·33	− ·29	2
19	− ·45	...	− ·42	− ·45	2
Nov. 6	− ·24	− ·21	− ·24	− ·16	1
7	− ·23	− ·13	− ·20	− ·20	1
Dec. 8	...	− ·38	− ·18	− ·28	1
9	− ·24	− ·33	− ·29	− ·43	1

The most striking features in the above are (1) the close agreement of the observations made with the two instruments and by the two methods of observing; and (2) the large amount of the Moon's error in right ascension, amounting to nearly —0$^{\mathrm{s}}$·40 in the mean for the year. This value is confirmed by the observations of limbs in the first and last quarters with the transit circle and by the extra-meridian observations with the altazimuth.

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The following table gives the difference of R.A. or N.P.D. of the centre as determined from observations of the crater or a limb when both were observed with the same instrument. The differences of R.A. can be found from the table given above.

	Differences of R.A. of Moon's Centre.				Differences of N.P.D. of Moon's Centre.			
	Altazimuth.		Transit Circle.		Altazimuth.		Transit Circle.	
	Möst. A. −1L	Möst. A. −2L	Möst. A. −1L	Möst. A. −2L	Möst. A. −NL	Möst. A. −SL	Möst. A. −NL	Möst. A. −SL
	s	s	s	s	″	″	″	″
	−·04	−·08	−·02	+·21	+0·94	−0·34	−0·59	−1·94
	+·02	−·07	+·05	−·01	+0·31	+0·21	+2·49	−0·67
	−·11	+·16	−·04	+·07	−2·72	+0·36	+1·10	+1·89
	+·04	+·16	+·16	+·03	+3·24	−3·57	−2·32	+3·37
	·00	+·07	+·03	−·19	−0·34	+0·21	−1·33	+0·11
	+·03	+·03	−·06	−·16	−2·97	+1·76	+0·11	+1·62
	+·10	+·06	−·04	+·15	−0·77	+0·11	+0·34	+2·62
	+·05	−·01	−·23	...	−1·61	+0·81	−0·39	+0·53
	+·04	−·17	−·12	...	+2·54	+0·66	−1·50	+1·13
	+·01	+·09	+·02	...	−0·09	+0·70	+0·22	...
	+·04	+·04	+·05	...	−1·14	+0·93	+1·25	...
	+·19	−·08	−·07	...	+1·02	−0·43	+0·14	...
	+·06	+·03	+·10	...	−0·18	...	...	...
	+·03	+·17	+·10	...	−1·60	...	...	...
	+·04	+·06	...	...	...	...	...	...
	+·06	+·12	...	...	...	...	...	...
	+·18	·00	...	...	...	...	...	...
	·00	+·04	...	...	...	...	...	...
	+·03	+·03	...	...	...	...	...	...
	−·05	...	...	...	...	...	...	...
Mean	+·036	+·033	−·019	·014	−0·24	−0·02	− 0·04	+0·96

The differences of right ascension of Mösting A given by the two instruments are as follows :—

Altazimuth — Transit Circle.

s	s	s
−·02	+·16	−·07
+·03	+·13	+·03
−·08	+·14	+·10
+·21	+·14	−·09
+·07	−·06	
Mean	+^{s}·05	

The observations are not sufficient for much weight to be attached to these results, but it seems desirable to draw atten-

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tion to them in view of the questions attaching to the observations of limbs.

As showing the amount of accidental error in observations of the Moon, the following comparison of altazimuth observations of Mösting A with transit-circle observations of the limbs has been made in R.A. As these are essentially different observations with different instruments, this comparison will give reliable values of the accidental errors.

Excess of Right Ascension of the Moon's Centre as obtained from Altazimuth Observations of Mösting A over Transit Circle Observations of the Moon's Limbs.

s	s	s	s
·00	+·13	+·05	+·16
+·01	+·09	+·22	−·05
+·05	+·29	+·13	+·04
+·04	−·02	+·07	−·04
+·03	+·03	+·02	+·08
−·09	+·20	+·11	·00
−·01	+·03	+·27	+·08
+·11	+·01	+·12	+·03
−·04	+·03	−·10	−·19
+·08	+·15	+·03	...

The algebraic mean of these quantities is $+^{s}{\cdot}055$, and the arithmetic mean $\pm^{s}{\cdot}083$ or $\pm^{s}{\cdot}072$ when the mean $+^{s}{\cdot}055$ is taken out. If the observations of Mösting A with the altazimuth and of the limb with the transit circle be taken as equally accurate, the probable error of an observation is $\pm^{s}{\cdot}052$, or $\pm^{s}{\cdot}044$, according as the uncorrected or corrected value of the arithmetic mean is taken.

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Lunar Nomenclature. By Walter Goodacre.

I think it will be readily granted by those who take an interest in lunar topography that the publication of Mr. S. A. Saunder's catalogue of 1433 measured points on the Moon's surface marks an epoch in selenography.

The completion of a task of this magnitude and importance could not fail to bring up once more the question of lunar nomenclature. The chaotic condition of this subject which at present exists and the urgent need for reform have been fully illustrated and set forth in the paper read by Mr. Saunder at the last meeting of the Society.